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ABSTRACT

The course prepares the business education student for the duties and ethics of the medical secretary and involves intensive practice with a high degree of speed and accuracy in taking dictation and transcribing materials related to the medical profession. Included are skills in spelling, pronouncing, and defining the most-used medical terms and the preparation of a variety of medical forms. Skill in advanced dictation and transcription is required as a prerequisite to entry into the course. Course content includes equipment and supplies, skill building, production of medical business forms, letters, and medical reports, duties, and ethics of a medical secretary. Included in the course description are suggested procedures, strategies, learning activities, evaluative instruments, student and teacher resource materials, and an appendix with sample study sheets and test items. (MW)

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MEDICAL DICTATION AND TRANSCRIPTION

7707.43 (New: 7754.43)

Business Education

Written by Carol S. Hoffman
And Approved by the Business Education Steering Committee
For Quinmester Courses

for the

DIVISION OF INSTRUCTION
Dade County Public Schools
Miami, FL 33132
1973

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I. COURSE TITLE--MEDICAL DICTATION AND TRANSCRIPTION

II. COURSE NUMBER--7707.43 (New: 7754.43)

III. COURSE DESCRIPTION

A. Synopsis
Intensive practice with a high degree of speed and accuracy in taking dictation and transcribing materials related to the medical profession; includes spelling, pronouncing, and defining the most-used medical terms, preparation of a variety of medical forms, and the duties and ethics of the medical secretary.

B. Textbook
One or more of the state adopted textbooks and/or one of the department's choosing.

C. Occupational Relationships
Medical secretary
Medical assistant

D. Shorthand System
Any symbolic shorthand system that the student has mastered--as well as machine shorthand--may be used in this course.

IV. COURSE ENROLLMENT GUIDELINES

A. Prior Experiences Needed
The student should have attained the objectives of Advanced Dictation and Transcription prior to enrollment in this course.

B. Related Learnings
Medical Typewriting (7705.32; new, 7766.32) should be taken also by students preparing for office occupations in the medical field.

C. Pretest
This test should be used to determine whether the student has attained the objectives of the preceding course and/or the objectives of this course. It should also help the teacher determine individual placement within the class.

V. COURSE OF STUDY PERFORMANCE OBJECTIVES

Upon successful completion of this course, students will be able to--

1. take practiced medical dictation at a minimum rate of 100 WAM for 5 minutes and transcribe their notes on a typewriter with 95 percent accuracy;

2. take unfamiliar medical dictation at a minimum rate of 90 WAM for 5 minutes and transcribe their notes on the typewriter with 95 percent accuracy;

V. COURSE OF STUDY PERFORMANCE OBJECTIVES, Continued

3. locate 25 medical terms and define them using the dictionary and medical reference materials;

4. take office-style medical dictation and transcribe their notes on the typewriter with 95 percent accuracy;

5. prepare at least three commonly-used medical forms and reports from dictated material;

6. write from dictation and transcribe at least 50 commonly used medical terms with 80 percent accuracy;

7. demonstrate personal qualities, traits, and attitudes of a medical secretary through good habits and self-evaluations;

8. demonstrate a knowledge of medical secretary job specifications by listing orally or in writing 20 duties of a medical secretary; and

9. analyze a given case problem and describe at least two ethical responsibilities of a medical secretary.

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VI. COURSE CONTENT

A. Equipment and Supplies
   1. Basic needs
      a. Typing desks for each student
      b. Typewriters--electric
      c. Adjustable posture chairs
      d. Textbook for each student
      e. Pens
      f. Paper
      g. Shorthand spiral pad
      h. Medical forms
      i. Carbon paper
      j. Dictionaries (both standard and medical), thesaurus, and secretarial handbook
      k. Correction tape, correction fluid, pencil and ink eraser
      l. Stopwatch
      m. Interval timer with bell
      n. Tape recorders and speed building tapes
   2. Supplementary needs
      a. Projectors (overhead, film, filmstrip)
      b. Record player
      c. Opaque projector
      d. Screen
      e. Tape recorder
      f. Postal ZIP code guides

B. Skill Building
   1. Timed writings (one, three and five minutes)
      a. Phrase, sentence, paragraph and straight copy drills related to medical terminology
         (1) Speed
         (2) Accuracy

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b. Letters with medical terminology
(1) Production
(2) Mailability

2. Dictation
a. Building medical shorthand vocabulary
(1) Accurate outlines or keyboarding
(2) Preview of correct outlines
b. Speed development
(1) Intensive dictation drills of familiar material (30 seconds; one-, three-, and five-minutes)
(2) Intensive dictation drills of unfamiliar, unpreviewed material (30 seconds; one-, three-, and five-minutes)

3. Medical Terminology
a. Spelling
(1) Shorthand
(2) Longhand
(3) Use of references
b. Pronunciation
(1) Phonetics
(2) Use of references
c. Definitions
(1) Prefixes
(2) Suffixes
(3) Use of references
d. Abbreviations
e. Medical specialties
f. Common terms
(1) Diseases
(2) Syndromes
(3) Signs and tests

C. Production of Medical Business Forms and Letters
1. Purchase orders
2. Invoices
3. Letters of request
4. Collection letters
5. Monthly statements
6. Authorizations
7. Office appointments
8. Banking forms
9. Phone messages
10. Doctor's personal letters

D. Production of Medical Forms and Reports
1. Medical reports
2. Insurance claims
3. Major medical
4. Medicare
5. Medicade
6. Consultation reports
7. Physical examinations
8. Doctor's order sheet

VI. COURSE CONTENT, Continued

9. Progress record
10. Hospital appointments
11. Transcript of patient interviews

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E. Duties Performed by a Medical Secretary
1. Handles the telephone
2. Makes appointments
3. Receives patients
4. Quotes fees to patients
5. Records patients' charges and payments
6. Sends out bills
7. Collects bills
8. Takes dictation and transcribes correspondence and medical histories
9. Completes insurance forms
10. Makes hospital reservations for patients
11. Procures nurses
12. Files histories and letters
13. Makes deposits
14. Reconciles bank statements
15. Keeps payroll records
16. Keeps the doctor's financial records
17. Handles petty cash
18. Uses business machines
19. Helps patients understand the doctor's instructions regarding diet, prenatal care, exercises, and other activities
20. Keeps track of dates for renewal of licenses, premiums due, membership fees, subscriptions, meetings, and other periodic activities
21. Checks medical journals for items of interest to the doctor
22. Proofreads the doctor's letters and manuscripts
23. Prepares records for the doctor's use in court
24. Orders, handles, and stores supplies
25. Plans trips for the doctor
26. Takes care of office in the doctor's absence

F. Ethics of the Medical Secretary
1. Privileged communications
2. Authorizations
3. Malpractice

VII. SUGGESTED PROCEDURES, STRATEGIES, AND LEARNING ACTIVITIES

A. Course Strategy and Method

The methodology to be utilized should be directed toward developing strong fundamentals in medical terminology, medical dictation, and medical transcription (the required skills) which are necessary for job competency.

Dictation tapes and records are helpful in teaching medical shorthand and are especially useful in the transcription of medical forms and letters. Multiple-listening stations may be set up so that each student may take dictation at his own speed.

Transcription is the ultimate goal of shorthand. Transcription skill does not grow by itself, sufficient time must be alotted for practice. This skill is developed and refined consistently through the entire course.

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An adequate amount of medical terminology should be introduced during class and students should be encouraged to read and study medical materials outside of class time.

Films, videotapes, or a medical secretary guest speaker could clarify duties and ethical responsibilities of a medical secretary.

Supplementary activities such as the following can make learning more meaningful and realistic to the students: (1) send out job opportunity survey forms or have students send them out to local medical offices to determine possible jobs for placement after graduation; (2) plan a work-a-week or work-a-day program in which students work in local medical offices during regular office hours.

B. Skill Building

Dictation is the basis of skill building in medical shorthand. New medical terminology should be presented, defined and dictated every week. Repetitive dictation practice builds speed and accuracy.

Skill building dictation is given at rates that are below and above the student's ability. It may be oral or recorded. Shorthand skill does not grow unless students are pushed to write above their present rates.

When transcribing, students should be encouraged to use the dictionary and medical reference books. Students could be pushed to increase their speeds by permitting only three passing takes at each speed.

When dictating for mailable transcripts, the dictation should be within the speed range of most of the students. Frustrations are reduced if several speeds of dictation recorded on tapes are available for assignment of appropriate speeds to each student.

C. Production of Medical and Business Letters

The student should become familiar with the various types of letters that the medical secretary composes. Attention should

be given to those letters that are routine (some of which are form letters) and those that must be sent in the doctor's absence. Practice in composing using shorthand will improve clarity and accuracy in writing characters if papers are exchanged for transcription.

Emphasis should be placed on the typing of mailable letters and the appearance of the overall product. Timed writings on the production of letters should be given after the student is acquainted with the medical vocabulary included in each letter.

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D. Report Writing

A secretary who can use library facilities and do library research is a tremendous asset to a physician. Shorthand skills increase the efficiency of such research. Basic rules for manuscript typing should be reviewed and the ways of using the library's resources should also be included. The students should be offered material to type that will reinforce these rules. The teacher should determine the individual needs of students in this area.

E. Medical Forms

Emphasis is placed on the need for absolute accuracy in typing insurance forms, patients' medical records, etc. Students should understand and be responsible for proofreading because an undetected error could result in serious consequences to the patient, doctor, or a third party. If notes are taken in shorthand, the characters must be clear and accurate.

F. Ethics

It is important for the student to learn about the guidelines and rules to which the medical profession is bound. The medical secretary has a moral responsibility to her employer. Realization of the importance of the confidential nature of this work is a must for the student.

G. Acceptability Standards

The student should be informed of the standards or goals that he should strive to achieve. The student should be able to relate each assignment to the actual office work of the medical secretary.

VIII. EVALUATIVE INSTRUMENTS

A. Tests

Suggested items for testing can be found in the Appendix.

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VIII. EVALUATIVE INSTRUMENTS, Continued

Pretests and posttests should include all of the following types of test items. During the course, tests may be limited to one or more of the types listed depending upon the skill(s) or knowledge(s) to be evaluated.

TYPE	PURPOSE
Fundamental Skills Test	To determine if the student has the basic skills in typing, shorthand, and language arts necessary for production of reports, forms and letters.
Medical Terminology Test	To determine whether the student can recognize and define commonly-used medical words.
Medical Suffixes and Prefixes Test	To determine whether the student can understand the usage and meaning of suffixes and prefixes in common medical terms.
Medical Letters Test	To determine if the student can take medical dictation and transcribe mailable letters.
Medical Forms Test	To determine whether the student can select and type dictated information on medical forms in the correct manner with 100 percent accuracy.
Production Timings	To determine the speed and degree of accuracy developed by the student in completing lengthy assignments.

B. Grading

Most of the work need not be graded. The work that is graded, however, should be thoroughly taught before results are evaluated. The system of grading used should be flexible in that the weight given to any activity should be in terms of the proportion of the course devoted to that activity.

At the end of the course, most of the grade is based on achievement; however, consideration should be given to improvement of skills. The vocational nature of this course makes achievement of a marketable skill the final standard.

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IX. RESOURCES FOR STUDENTS:

A. Textbooks:

Bredow, Miriam. Handbook for the Medical Secretary, 4th ed. New York: Gregg Division of McGraw-Hill Book Co., 1969.

Bredow, Miriam. Medical Secretarial Procedures. New York: Gregg Division of McGraw-Hill Book Co., 1966.

Byers, Edward E. 10,000 Medical Words. New York: Gregg Division of McGraw-Hill Book Co., 1972.

Davis, P. E. and Hershelman, N. Medical Dictation and Transcription. Somerset, New Jersey: John Wiley & Sons, Inc., 1968.

Masters, N. C. and Shapiro, H. A. Medical Secretary and the Doctor-Patient Relationship. New York: International Publications Service, 1966.

Root, Kathleen Berger and Byers, Edward E. The Medical Secretary: Terminology and Transcription, 3rd ed. New York: Gregg Division of McGraw-Hill Book Co., 1967.

B. Reference Manuals

Aspley, John Cameron. Office Administration Handbook. Chicago: The Dartnell Corporation, 1967.

Becker, Estner and Anders, Evelyn. The Successful Secretary's Handbook. New York: Harper and Row Publishers, 1971.

Bolander, Donald O. and Bisdorf, Rita. Instant Spelling Medical Dictionary. Mundelein, Illinois: Career Institute, 1970.

Dorland, W. A. Dorland's Illustrated Medical Dictionary, 24th ed. Philadelphia: W. B. Saunders Co., 1965.

Fishbein, Myreta. The Medical Secretary's Manual. New York: Appleton Publishing Co., 1966.

Fishbein, Morris, M. D. The Popular Medical Encyclopedia. New York: Doubleday and Co., Inc., 1946.

Frohse, Franz et. al. Atlas of Human Anatomy, 6th enl. ed. New York: Barnes and Noble, Inc., 1961.

Gavin, Ruth E. and Sabin, William A. Reference Manual for Stenographers and Typists, 4th ed. New York: Gregg Division of McGraw-Hill Book Co., 1970.

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IX. RESOURCES FOR STUDENTS, Continued

Hoerr, N. L. and Osol, A., editors. Blakiston's Illustrated Pocket Medical Dictionary. New York: Gregg Division of McGraw-Hill Book Co., 1960.

Hoerr, N. L. and Osol, A., editors. Blakiston's New Gould Medical Dictionary, 2nd ed. New York: Gregg Division of McGraw-Hill Book Co., 1956.

Janis, Jack Harold and Thompson, Margaret H. New Standard Reference for Secretaries and Administrative Assistants. New York: Macmillan Publishing Co., 1972.

JeHarned, R. N. Medical Terminology Made Easy, 2nd ed. Berwyn, Illinois: Physicians' Record Co., 1968.

Johnson, Carrie E. Medical Spelling Guide: A Reference Aid. Springfield, Illinois: Charles C. Thomas, 1966.

Roget, P. M. Roget's International Thesaurus, 3rd ed. New York: T. Y. Crowell Co., 1962.

Rothenberg, Robert E. The New American Medical Dictionary and Health Manual. New York: W. W. Norton & Co., 1966.

Silverthorn, J. E. and Perry, Devern J. Word Division Manual. Cincinnati: South-Western Publishing Co., 1970.

Sloane, Sheila B. Medical Word Book: A Spelling and Vocabulary Guide to Medical Transcription. Philadelphia: W. B. Saunders Co., 1973.

Stedman, Thomas L. Stedman's Medical Dictionary, 22nd ed. Baltimore: The Williams & Wilkins Co., 1972.

Torres, Francisco Ruiz. Medi-Cina (English-Spanish and Spanish-English Medical Dictionary). Madrid: Editorial Alhambra Publications.

Tver, David F. Dictionary of Business and Scientific Terms, 2nd ed. Houston: Gulf Publishing Co., 1968.

Willeford, George. Medical Word Finder. West Nyack, N. Y.: Parker Publishing Co., sub. of Prentice-Hall, Inc., 1967.

C. Tapes, Cassettes and Records

Hadley, Anne. Medical Terminology in 30 Days (6 tapes, $90). Mountain View, California: Western Tape.

Hadley, Anne. The Medical Secretary as a Word Technician (8 tapes, $96). Mountain View, California: Western Tape.

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IX. RESOURCES FOR STUDENTS, Continued

Medical Dictation, Set 21 (4 records, $[illegible]). New York: Dictation Disc Company.

Medical Secretary: An Introductory Course (2 tapes, 1 booklet, and 14 forms). Mountain View, California: Western Tape.

Pascale, Alfred C. The Secretarial Specialist (30 tapes, $150). Providence, R. I.: Programs for Achievement in Reading, Inc.

Root, Kathleen Berger and Byers, Edward E. Medical Dictation and Transcription Tapes, correlated with The Medical Secretary, Terminology and Transcription, 3rd ed. ($220). New York: Gregg Division of McGraw-Hill Book Co.

Waswo, Lyalda. Enrichment Tapes for Medical Dictation and Transcription ($140). New York: Gregg Division of McGraw-Hill Book Co.

Woolley, LeGrande H. Medical-Dental Terminology (11 tapes, $148.35). Mountain View, California: Western Tape.

X. RESOURCES FOR TEACHERS

A. Books

Teacher manuals and/or keys are available for most of the books listed in the previous section, Resources for Students, from the respective publishing companies.

Dennis, Robert L. and Doyle, Jean M. The Complete Handbook for Medical Secretaries and Assistants. Boston: Little, Brown, & Co., 1971.

Kabbe, Elaine F. Medical Secretary's Guide. West Nyack, N. Y.: Parker Publishing Company, Inc., 1970.

Roberts, F. Medical Terms: Their Origin and Construction, 5th ed. Springfield, Illinois: Charles C. Thomas, Publisher, 1972.

Strand, Helen R. An Illustrated Guide to Medical Terminology. Baltimore: The Williams and Wilkins Co., 1969.

B. Teaching-Learning Aids (From South-Western Publishing Company and Gregg Division of McGraw-Hill Book Company)
1. Certificates of credit and proficiency
2. Award pins and charms
3. Progress charts
4. Roll of honor
5. Instructional wall charts

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X. RESOURCES FOR TEACHERS

C. Periodicals

Balance Sheet, The. Cincinnati: South-Western Publishing Company.

Business Education Forum. Washington, D. C.: National Business Education Association. (monthly publication)

Business Education World. New York: Gregg Division of McGraw-Hill Book Company.

Manpower. Washington, D. C.: U. S. Department of Labor, Manpower Administration. (monthly publication)

Medical Digest. Northfield, Illinois. (published monthly)

Medical Times. Port Washington, New York. (published monthly)

The Doctor's Assistant. Elkhart, Indiana: Ames Company, Division of Miles Laboratories, Inc.

Today's Health. 535 N. Dearborn Street, Chicago, Illinois.

Today's Secretary. New York: Gregg Division of McGraw-Hill Book Company.

Appendix :

SAMPLE STUDY SHEETS

A. Business and Medical Letters

Listed below are sample letters a medical secretary might write (for the secretary's signature):

1. Dear Mr. Barrett:

There will be a room available at Jackson Memorial Hospital on Monday, June 30. I have reserved this room for you. Will you please make arrangements to go to the hospital on that day.

Dr. Taylor will stop in to see you on Monday evening.

Sincerely yours,

Secretary to Dr. Taylor

2. The Mutual Insurance Company

Gentlemen:

RE: Eugene Sanders

Two months ago Dr. Taylor sent you his bill for services rendered to the above-named patient.

Inasmuch as the 48-hour report and several progress reports were sent to you, Dr. Taylor is wondering why he has not received your check.

Will you kindly look into this matter.

Very truly yours,

Secretary to Dr. Taylor

The following letters would need the doctor's signature:

3. Dear Dr. Salvati:

Mrs. Jane Rinehart came to me today for consultation and told me that she had been under your care for quite some time.

I should appreciate it greatly if you would let me have the medical history of Mrs. Rinehart. I am enclosing a written consent from her.

Sincerely yours,

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4. Dear Dr. Jackson:

I am recommending to you Mr. Elmer Walter for treatment using physical therapy. Mr. Walter is suffering from a low back pain on the right side.

I should appreciate it if you will report to me any progress or non-reaction.

Sincerely yours,

B. Medical Forms

Whenever another opinion for further diagnosis is desired, the physician in charge of the case will request the services of another doctor. Such a request is called a consultation request, and a consultation report is completed.

CONSULTATION REPORT

TO J. E. Newton DATE 1-7-72 TIME 8:00 a.m.
service or physician
REQUEST CONSULTATION REGARDING:

Sharp, knife-like pain in the left inguinal region. This pain persists when patient walks about or is at work but subsides when he reclines. Swelling in the groin is detected. Diagnosed as hernia.

M.D.
Attending Physician

CONSULTANT'S NOTE DATE 1-8-72 TIME 8:30 a.m.

Opinion and Recommendations:

Diagnosis concurred.

M.D.

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C. Medical Terminology

1. Abbreviations. Abbreviations are a part of the everyday language of a doctor's office. Although first designed for use on written prescriptions, the use of abbreviations has developed into almost a second language in medicine. The following are commonly-used abbreviations in medicine:

āā	equal parts of each
a.c.	before meals
ad lib.	at will
alt. dieb.	alternate days
alt. hor.	alternate hours
A.Z.	Aschheim-Zondek test for pregnancy
A.P.	antero-posterior or front to back
ASHD	Arteriosclerotic heart disease
b.i.d.	twice a day
B.E.	Barium enema
B.M.R.	basal metabolism rate
B.P.	blood pressure
B.S.	blood sugar
BUN	blood urea nitrogen
c̄	with
C.	centigrade
Ca.	carcinoma
C.B.C.	complete blood count
caps.	capsules
cc.	cubic centimeter
cm.	centimeter
coq.	boil
CVA	cerebrovascular accident
d.	daily
d.d.	let it be given to
Dx.	diagnosis
dil.	dilute
div.	divide
dr.	dram (drachm), drams (drachms)
d.t.d.	give of such a dose
EKG or ECG	electrocardiogram
EEG	electroencephalogram
E.E.N.T.	eye, ear, nose and throat
extr.	extract
F.	Fahrenheit
FUO	fever of undetermined origin
Fx.	fracture
fl.	fluid
fl. oz.	fluid ounce
ft.	let there be made
G.B.	gall bladder
G.I.	gastrointestinal

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Gm.	gram, grams
gr.	grain, grains
gt.	drop
gtt.	drops
h.	hour
Hb.	hemoglobin
Hct.	hematocrit
h.s.	hour of sleep (bedtime)
$\frac{\cdot}{1}$	one
I.Q.	intelligence quotient
I.M.	intramuscular
inj.	injection
I.V.	intravenous
m.Eq.	milliequivalents
mg.	milligram
mm.	millimeter
N.A.D.	no appreciable disease
neg.	negative
noct.	at night
N.Y.D.	not yet diagnosed
O.B.	obstetrics
o.h.	every hour
o.m.	every morning
o.n.	every night
O.P.D.	out-patient department
ov.	ovum
oz.	ounce
P.A.	POSTERIOR-ANTERIOR or back to front
p.a.	in equal parts
p.c.	after food; after meals
p.r.n.	as needed
PID	pelvic inflammatory disease
q	every
q.h.	every hour
q.2h	every second hour
q.3h	every third hour
q.i.d.	four times a day
Rx	prescription
R.B.C.	red blood count
S. or Sig.	give the following directions
$\bar{ss}$	one-half
stat.	immediately
TB	tuberculosis
t.i.d.	three times a day
W.B.C.	white blood count
U.R.I.	upper respiratory infection

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2. Prefixes. Prefixes (word beginnings) and suffixes (word endings) are present in the medical vocabulary. True prefixes and suffixes must be combined with a word and cannot stand alone. There are also some prefixes and suffixes that are on the border line--that is, the term represents a word in its Greek, Latin or other origin; but it lost its independent existence when it was adopted into our present (English) medical terminology. A list of the most frequently encountered prefixes is given below:

a-	without, not
ab-	from, away
ad-	to, toward
ambi-	both
ana-	up, back, again
ante-	before
auto-	self
bi-, bis-	twice, double
bio-	pertaining to life
cata-	down, lower, under
circum-	around, about
co-, com-	together
con-, contra-	with
de-	down, from
di-	double, twice
dia-	through, apart
dis-	apart, away from
dys-	difficult, painful
e-	out of, from
ec-	out of
ecto-	outside
en-	in, into
endo-	within
entero-	intestine
epi-	upon
ex-, exo-	outside, out of
gastr-, gastro-	stomach
hemi-	half
hemo-, haemo-, hem-, hema-	blood
hyper-	over, increase
hypo-	under, decreased
infra-	below
inter-	between
intra-	within, into
intro-	into
juxta-	near, nearby
macro-	large
micro-	many, much
myo-	muscle
neur-, neuro-	pertaining to the nerve
olig-, oligo-	few, less than normal
ortho-	normal
pan-	all, every
para-	apart from
patho-	disease
per-	through
peri-	around
poly-	many
post-	after
pre-	before
pyo-	plus
re-	back, again
retro-	backward
semi-	half
steno-	contracted
sub-	less, under
super-	excessive
supra-	above, upon
sym-, syn	together
trans-	across
ultra-	beyond, excess

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3. Suffixes. A list of the most frequently encountered suffixes is given below:

-aesthesio, - esthesia	sensation
-algia	pain
-dynia	pain
-ectomy	surgical removal of
-genetic, -genic	producing, origin
-genous	kind
-gram	tracing, picture
-graph	instrument for recording
-itis	inflammation
-oid	like, resembling
-ology	study of, science of
-oma	tumor
-oscopy	diagnostic examination
-osis	condition, state
-ostomy	opening
-otomy	incision
-pathia, -pathy	disease of, feeling
-plegia	paralysis
-rrhagia	sudden flow
-rrhea	flow
-tropy	nutrition
-uria	urine

D. Phonetics

In taking dictation, the medical secretary writes terms phonetically without always knowing how to spell them. Thus, she may be unable to find these words in the dictionary. The rules on phonetics below will serve as a guide in looking up words in the dictionary when only the phonetic sound is known.

Phonetic Sound	Spelling	Example
er-e	ery	erythema
je ju	jeju	jejunal
kar	kar	karyochrome
lu	leu	leukemia
nu	pneu	pneumonia
rú	rheu	rheumatism
re -ah	rrhea	otorrhea
sil	ci	cilia
ses	scess	abscess
séo	scio	fasciola
shé-ah	scia	fascia
shik	schick	Schick (foreign name)
sist	cy	cyst
si	cy	cyanide
tha	phtha	phthalate
si	psy	psyche
thi	phthi	phthisis
to	pto	ptosis

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E. Medical Specialties

Because there are so many branches of medical practice, the duties of the medical secretary will be determined by the specialty of the doctor for whom she works. Familiarity with the terms peculiar to his specialty, instruments used, and problems likely to be encountered will greatly facilitate the performance of her duties. The most commonly practiced specialties are given below:

Anesthesiologist = an M.D. specializing in anesthesia
Cardiologist = an M.D. specializing in heart disease
Dermatologist = an M.D. specializing in skin disease
Endocrinologist = an M.D. specializing in gland diseases
Gastroenterologist = an M.D. specializing in diseases of the stomach and intestines
General Practitioner = an M.D. not a specialist in any particular area
Gynecologist = an M.D. specializing in disease of female reproductive organs
Internist = an M.D. specializing in diagnosis
Neurologist = an M.D. specializing in disease of the nerves and brain
Obstetrician = an M.D. specializing in delivering babies
Oncologist = an M.D. specializing in tumors
Ophthalmologist = an M.D. specializing in treatment of the eye
Orthopedist = an M.D. specializing in diseases of the bones and joints
Otolaryngologist = an M.D. specializing in ear, nose and throat diseases
Pathologist = an M.D. specializing in the study of diseased tissue
Pediatrician = an M.D. specializing in treatment of children
Proctologist = an M.D. specializing in diseases of the rectum and colon
Psychiatrist = an M.D. specializing in diseases of the mind
Radiologist = an M.D. specializing in X-ray
Surgeon = an M.D.specializing in surgery
Urologist = an M.D. specializing in diseases of the kidney

SAMPLE TEST ITEMS

A. Medical Letters Test

1. Directions: The doctor has asked you to write a letter to X-rays, Inc., to see if you can get some information about prices. He has heard that a considerable saving can be effected by buying film from this company. Use block style with closed punctuation.

X-rays, Inc., 2814 Territory Street, Rushing, Virginia.
Gentlemen I am interested in obtaining information relative to prices and service available on your x-ray film.

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I have very little available storage space and have never felt it wise to purchase film out of the city. However, recently it has been brought to my attention by several associates that a considerable saving might be effected in obtaining film from your company.

At the present time, I use approximately one hundred 14 x 17 films, fifty 10 x 12 films and twenty 8 x 10 films per month.

I would like very much to hear from you regarding your prices as well as the availability of service and shipping time involved. Do you have a local service for emergency needs?

I shall look forward to your reply in the hope that we might mutually profit in future business.
John F. Smith, M.D. (your initials)

2. Directions: The doctor has shown you an article in the Journal of the American Medical Association and asked you to write a letter to the publishing company to get a reprint. Use modified block style with open punctuation.

Harry J. Sloan, M. D., 2233 - 16th Avenue, Wahoo, Louisiana.
Dear Doctor Sloan I have read with interest your article, "Radiation Effects on Sea Turtles," in the October issue of the Journal of the American Medical Association.

It would be greatly appreciated if you could provide me with a reprint of this very interesting and informative article.

Thank you very much for your kindness. Sincerely yours
John F. Smith, M.D. (your initials)

B. Medical Forms Test

1. Directions: You will receive a set of forms from your instructor that you will use in completing the following problems.

a. The instructor will dictate the following medical history. After the student takes notes in shorthand, he will transcribe the material on the proper medical form.

NAME: Minnie Carlsen (Mrs. Joseph A.)
REFERRED BY: Dr. Edwin Marston
ADDRESS: 1450 J. Street, Charleston, Virginia
OCCUPATION: Housewife
AGE: 36
MARRIED: 14 years (3 children, 13, 10, 8)
CHIEF COMPLAINT: Upper abdominal pain, heartburn

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PAST HISTORY: Measles and several attacks of sore throat, otherwise healthy childhood. At 16, while preparing for college, had a good deal of heartburn. Took medicine and the heartburn disappeared. At 16 her appendix was removed because of much abdominal pain. While at college, she would occasionally have severe heartburn, for which she took bicarbonate of soda, with relief; but it did not bother her enough for her to consult a doctor.

Married at 22, first child born a year later. Had a great deal of heartburn during pregnancy. At 24 patient had the first severe attack of upper abdominal pain. At that time she was nervous and very anxious about the baby. She consulted a physician who examined her and told her she had "ulcer of the stomach." The symptom yielded quickly to diet and medicine.

Similar symptoms have recurred at intervals, sometimes as long as two years, and again yielded to treatment. She never had any nausea or vomiting.

About three weeks ago, patient had another severe attack of upper abdominal pain of the same type as formerly, but she did not get relief from her usual medication.

HABITS: Alcohol, at most two cocktails a week. Coffee, two or three cups daily. Smoking, up to one package a day. Meals regular, appetite fair.

FAMILY HISTORY: Father 60, well and still active. Mother 60. As far as patient knows has always worried a great deal about her children. Had "stomach trouble" even before her marriage at 20 and often since. An older sister had similar trouble and is also very nervous. Another sister and two brothers have been well.

PHYSICAL EXAMINATION: Tenderness in the epigastric region

LABORATORY EXAMINATION:

Free hydrochloric acid, 80 degrees
Blood positive in gastric contents
Gastric juice: 50 cc. obtained, no food particles
Hemaglobin: 11 gms.
Differential count: normal
Occult blood in stool
Indicanuria
Red blood cells 3,500,000

X-RAYS: Show an irregular erosion of the gastric mucosa 5 cm. from the pylorus on the greater curvature.

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DIAGNOSIS: Gastric ulcer

TREATMENT PRESCRIBED: Special bland diet, no alcohol. Antiacid medication. Patient to return in one week.

2. Directions: The following material can be dictated on tape for the student to transcribe on the correct form for an itemized bill.

FROM: Warren Taylor, M.D., 310 Sunset Boulevard, Centerville, New York. Current date.

TO: National Insurance Company, 90 William Street, New York, New York

RE: Mandiano, Thomas 345 East 112 Street, New York, New York

EMPLOYER: General Clothing Manufacturing Company, 35 Fifth Avenue, New York, New York

DATE OF ACCIDENT: March 22, 1972

FOR SERVICES RENDERED:

March 22 @ $7.....	$ 7.00
March 23, 24, 26, 29; April 2 @ $6.....	30.00
TOTAL	$37.00

C. Prefix Test

Directions: Match each prefix with its meaning.

(a) Anti	j	(1) Excessive
(b) Brady	k	(2) Before in time or place
(c) Endo	i	(3) Beneath or under
(d) Supra	e	(4) Under, less
(e) Hypo	l	(5) Without or absence of
(f) Antero	a	(6) Against
(g) Dys	b	(7) Slow
(h) Poly	c	(8) Within, internal
(i) Sub	d	(9) Above, over
(j) Hyper	h	(10) Many, much
(k) Ante	f	(11) Before, in front of
(l) A - An	g	(12) Painful or difficult

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D. Abbreviations Test

Directions: Match each abbreviation with its meaning.

(a) Leuk	g	(1) Intestine
(b) Derm	j	(2) Liver
(c) Cephal	a	(3) White
(d) Lymph	b	(4) Skin
(e) Nephr	i	(5) Great, large
(f) Hyster	h	(6) Bone
(g) Enter	c	(7) Head
(h) Ost (e)	e	(8) Kidney
(i) Megal	f	(9) Womb, uterus
(j) Hepat	d	(10) Drainage

E. Suffix Test

Directions: Match each suffix with its meaning.

(a) Itis	d	(1) Excision, removal
(b) Ology	e	(2) Disease
(c) Uria	a	(3) Inflammation of
(d) Ectomy	b	(4) Study, science
(e) Pathy	c	(5) Urine

F. Word Meaning Test

Directions: Match each word with its definition.

(a) Bronchiectasis	f	(1) Inflammation of a vein
(b) Hematology	d	(2) Removal of larynx
(c) Cardiogram	h	(3) Water treatment
(d) Laryngectomy	j	(4) Inflammation of the lung
(e) Ophthalmology	c	(5) Tracing of heart action
(f) Phlebitis	a	(6) Dilation of windpipe
(g) Tracheotomy	i	(7) Chest repair
(h) Hydrotherapy	b	(8) Study of blood
(i) Thoracoplasty	e	(9) Science of the eye
(j) Pneumonitis	g	(10) Opening in windpipe